



SEQUENCE LISTING

<110> LAZAROVITS, JANETTE
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VOGEL, TIKVA
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MAR-HAIM, HAGIT
SZANTHON, ESTER
RICHTER, TAMAR
AMIT, BOAZ
COOPERMAN, LENA
PERETZ, TUVIA
LEVANON, AVIGDOR

<120> Y17 - ISOLATED MOLECULES COMPRISING EPITOPES
CONTAINING SULFATED MOIETIES, ANTIBODIES TO SUCH
EPITOPES, AND USES THEREOF

<130> 10793/45

<140> 10/032,423

<141> 2001-12-31

<150> 60/258,948

<151> 2000-12-29

<160> 270

<170> PatentIn Ver. 3.3

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Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser
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Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly
35 40 45

Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser
50 55 60

Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp
65 70 75 80

Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Val
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Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Ala
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 Met Arg Ala Pro Val Ile
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 Gly Phe Pro Arg Ile Thr Pro Pro Ser Ala Glu Ile
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 Gly Phe Pro His Ser Ser Ser Val Ser Arg
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 Arg Phe Pro Met Arg His Glu Lys Thr Asn Tyr
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Arg Tyr Tyr Cys Arg Ser Ser Asp Cys Thr Val Ser
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Phe Arg Arg Met Glu Thr Val Pro Ala Pro
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Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala
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Ala Gln Pro Ala Met Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly
 20 25 30

Val Val Arg Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 35 40 45

Phe Thr Phe Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly
 50 55 60

Lys Gly Leu Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr
 65 70 75 80

Gly Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
 85 90 95

Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly
 115 120 125

Gln Gly Thr Leu Val Thr Val Ser Arg Gly Gly Gly Gly Ser Gly Gly
 130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala
 145 150 155 160

Val Ser Val Ala Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp
 165 170 175

Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln
 180 185 190

Ala Pro Val Leu Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile
 195 200 205

Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr
 210 215 220

Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser
 225 230 235 240

Arg Asp Ser Ser Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu
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Thr Val Leu Gly Ala Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp
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Leu Asn Gly Ala Ala
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 20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 50 55 60

Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala
 65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 85 90 95

Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
 100 105 110

Tyr Tyr Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr
 115 120 125

Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
 130 135 140

Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly
 145 150 155 160

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
 165 170 175

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
 180 185 190

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
 195 200 205

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
 210 215 220

Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr
 225 230 235 240

His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser	
				245					250					255		
Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	
				260					265					270		
Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	
				275					280					285		
Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	
				290					295					300		
Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	Arg	Val	Val	
				305					310					315		
Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	
				325					330					335		
Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	
				340					345					350		
Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	
				355					360					365		
Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	
				370					375					380		
Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	
				385					390					395		
Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Ser	Pro	Val	Leu	Asp	
				405					410					415		
Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	
				420					425					430		
Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	
				435					440					445		
Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Leu	Gly	Lys	
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Ser Trp Ala Asp Ala Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala
          20                      25                      30

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Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser
 35 40 45
 Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu
 50 55 60
 Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe
 65 70 75 80
 Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala
 85 90 95
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser
 100 105 110
 Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 115 120 125
 Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu
 130 135 140
 Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe
 145 150 155 160
 Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val
 165 170 175
 Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys
 180 185 190
 Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser
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 His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu
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 Lys Thr Val Ala Pro Thr Glu Cys Ser
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Phe Leu Thr Tyr Asn Ser Tyr Glu Val Pro Thr
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Thr Asn Trp Tyr Leu Arg Pro Leu Asn

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20 25 30Tyr Met His Trp Val Gln Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
35 40 45Gly Leu Val Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Glu Lys Phe
50 55 60Gln Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Asp Thr Ala Tyr
65 70 75 80Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Thr

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35 40 45Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
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85 90 95

Ala Arg

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 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Thr

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 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Ser Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
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 Ala Arg

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 20 25 30
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

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 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Trp Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
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 Tyr Met His Trp Val Xaa Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

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 Cys Met His Trp Val Arg Gln Val His Ala Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Leu Val Cys Pro Ser Asp Gly Ser Thr Ser Tyr Ala Gln Lys Phe
 50 55 60
 Gln Ala Arg Val Thr Ile Thr Arg Asp Thr Ser Met Ser Thr Ala Tyr
 65 70 75 80
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 85 90 95
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 20 25 30
 Ala Val Gln Trp Val Arg Gln Ala Arg Gly Gln Arg Leu Glu Trp Ile
 35 40 45
 Gly Trp Ile Val Val Gly Ser Gly Asn Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Glu Arg Val Thr Ile Thr Arg Asp Met Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Ala

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 Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

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 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
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 Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Arg Ile Ile Pro Ile Leu Gly Ile Ala Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

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 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Gln Arg Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Ala Gly Asn Gly Asn Thr Lys Tyr Ser Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Ile Thr Arg Asp Thr Ser Ala Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

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 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Gln Arg Leu Glu Trp Met
 35 40 45
 Gly Trp Ser Asn Ala Gly Asn Gly Asn Thr Lys Tyr Ser Gln Glu Phe
 50 55 60
 Gln Gly Arg Val Thr Ile Thr Arg Asp Thr Ser Ala Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Met Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

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 20 25 30
 Ala Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Thr Asn Thr Gly Asn Pro Thr Tyr Ala Gln Gly Phe
 50 55 60
 Thr Gly Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr
 65 70 75 80
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 85 90 95
 Ala Arg

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 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Ala Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Thr Asn Thr Gly Asn Pro Thr Tyr Ala Gln Gly Phe
 50 55 60
 Thr Gly Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

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 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

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 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
 50 55 60
 Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 47
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 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
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 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
 50 55 60
 Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala
 85 90

<210> 48
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<400> 48

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
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Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr
			20					25					30		
Tyr	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met
		35					40					45			
Gly	Ile	Ile	Asn	Pro	Ser	Gly	Gly	Ser	Thr	Ser	Tyr	Ala	Gln	Lys	Phe
	50					55					60				
Gln	Gly	Arg	Val	Thr	Met	Thr	Arg	Asp	Thr	Ser	Thr	Ser	Thr	Val	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	

Ala Arg

<210> 49

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<400> 49

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	
Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Asn	Ser	Tyr
			20					25					30		
Tyr	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met
		35					40					45			
Gly	Ile	Ile	Asn	Pro	Ser	Gly	Gly	Ser	Thr	Ser	Tyr	Ala	Gln	Lys	Phe
	50					55					60				
Gln	Gly	Arg	Val	Thr	Met	Thr	Arg	Asp	Thr	Ser	Thr	Ser	Thr	Val	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	

Ala Arg

<210> 50

<211> 98

<212> PRT

<213> Homo sapiens

<400> 50

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Thr Gly Ser
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Tyr Arg
 20 25 30
 Tyr Leu His Trp Val Arg Gln Ala Pro Gly Gln Ala Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Thr Pro Phe Asn Gly Asn Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser Met Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 51

<211> 98

<212> PRT

<213> Homo sapiens

<400> 51

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Thr Gly Ser
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Tyr Arg
 20 25 30
 Tyr Leu His Trp Val Arg Gln Ala Pro Gly Gln Ala Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Thr Pro Phe Asn Gly Asn Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser Met Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 52

<211> 96

<212> PRT

<213> Homo sapiens

<400> 52

Gln	Val	Thr	Leu	Lys	Glu	Ser	Gly	Pro	Val	Leu	Val	Lys	Pro	Thr	Glu
1				5				10					15		
Thr	Leu	Thr	Leu	Thr	Cys	Thr	Val	Ser	Gly	Phe	Ser	Leu	Ser	Asn	Ala
			20					25					30		
Arg	Met	Gly	Val	Ser	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Ala	Leu	Glu
		35					40					45			
Trp	Leu	Ala	His	Ile	Phe	Ser	Asn	Asp	Glu	Lys	Ser	Tyr	Ser	Thr	Ser
	50					55					60				
Leu	Lys	Ser	Arg	Leu	Thr	Ile	Ser	Lys	Asp	Thr	Ser	Lys	Ser	Gln	Val
	65				70					75					80
Val	Leu	Thr	Met	Thr	Asn	Met	Asp	Pro	Val	Asp	Thr	Ala	Thr	Tyr	Tyr
				85					90					95	

<210> 53

<211> 99

<212> PRT

<213> Homo sapiens

<400> 53

Gln	Ile	Thr	Leu	Lys	Glu	Ser	Gly	Pro	Thr	Leu	Val	Lys	Pro	Thr	Gln
1				5				10					15		
Thr	Leu	Thr	Leu	Thr	Cys	Thr	Phe	Ser	Gly	Phe	Ser	Leu	Ser	Thr	Ser
			20					25					30		
Glu	Trp	Cys	Gly	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Ala	Leu	Glu	Trp
		35					40					45			
Leu	Ala	Leu	Ile	Tyr	Trp	Asn	Asp	Asp	Lys	Arg	Tyr	Ser	Pro	Ser	Leu
	50					55					60				
Lys	Ser	Arg	Leu	Thr	Ile	Thr	Lys	Asp	Thr	Ser	Lys	Asn	Gln	Val	Val
	65				70					75					80
Leu	Thr	Met	Thr	Asn	Met	Asp	Pro	Val	Asp	Thr	Ala	Thr	Tyr	Tyr	Cys
				85					90					95	

Ala His Arg

<210> 54

<211> 96

<212> PRT

<213> Homo sapiens

<400> 54

Gln	Val	Thr	Leu	Arg	Glu	Ser	Gly	Pro	Ala	Leu	Val	Lys	Pro	Thr	Gln
1				5					10					15	
Thr	Leu	Thr	Leu	Thr	Cys	Thr	Phe	Ser	Gly	Phe	Ser	Leu	Ser	Thr	Ser
			20					25					30		
Gly	Met	Cys	Val	Ser	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Ala	Leu	Glu
		35					40					45			
Trp	Leu	Ala	Leu	Ile	Asp	Trp	Asp	Asp	Asp	Lys	Tyr	Tyr	Ser	Thr	Ser
	50					55					60				
Leu	Lys	Thr	Arg	Leu	Thr	Ile	Ser	Lys	Asp	Thr	Ser	Lys	Asn	Gln	Val
65					70					75				80	
Val	Leu	Thr	Met	Thr	Asn	Met	Asp	Pro	Val	Asp	Thr	Ala	Thr	Tyr	Tyr
				85					90					95	

<210> 55

<211> 96

<212> PRT

<213> Homo sapiens

<400> 55

Gln	Val	Thr	Leu	Lys	Glu	Ser	Gly	Pro	Ala	Leu	Val	Lys	Pro	Thr	Gln
1				5					10					15	
Thr	Leu	Thr	Leu	Thr	Cys	Thr	Phe	Ser	Gly	Phe	Ser	Leu	Ser	Thr	Ser
			20					25					30		
Gly	Met	Arg	Val	Ser	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Ala	Leu	Glu
		35					40					45			
Trp	Leu	Ala	Arg	Ile	Asp	Trp	Asp	Asp	Asp	Lys	Phe	Tyr	Ser	Thr	Ser
	50					55					60				
Leu	Lys	Thr	Arg	Leu	Thr	Ile	Ser	Lys	Asp	Thr	Ser	Lys	Asn	Gln	Val
65					70					75				80	
Val	Leu	Thr	Met	Thr	Asn	Met	Asp	Pro	Val	Asp	Thr	Ala	Thr	Tyr	Tyr
				85					90					95	

<210> 56

<211> 100

<212> PRT

<213> Homo sapiens

<400> 56

Gln Ile Thr Leu Lys Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1 5 10 15
 Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30
 Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
 35 40 45
 Trp Leu Ala Leu Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser
 50 55 60
 Leu Lys Ser Arg Leu Thr Ile Thr Lys Asp Thr Ser Lys Asn Gln Val
 65 70 75 80
 Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
 85 90 95
 Cys Ala His Arg
 100

<210> 57

<211> 100

<212> PRT

<213> Homo sapiens

<400> 57

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp His
 20 25 30
 Tyr Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Gly Arg Thr Arg Asn Lys Ala Asn Ser Tyr Thr Thr Glu Tyr Ala Ala
 50 55 60
 Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser
 65 70 75 80
 Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Ala Arg
 100

<210> 58

<211> 100

<212> PRT

<213> Homo sapiens

<400> 58

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp His
 20 25 30

Tyr Met Ser Trp Val Arg Gln Ala Gln Gly Lys Gly Leu Glu Leu Val
 35 40 45

Gly Leu Ile Arg Asn Lys Ala Asn Ser Tyr Thr Thr Glu Tyr Ala Ala
 50 55 60

Ser Val Lys Gly Arg Leu Thr Ile Ser Arg Glu Asp Ser Lys Asn Thr
 65 70 75 80

Leu Tyr Leu Gln Met Ser Ser Leu Lys Thr Glu Asp Leu Ala Val Tyr
 85 90 95

Tyr Cys Ala Arg
 100

<210> 59

<211> 100

<212> PRT

<213> Homo sapiens

<400> 59

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp His
 20 25 30

Tyr Met Ser Trp Val Arg Gln Ala Gln Gly Lys Gly Leu Glu Leu Val
 35 40 45

Gly Leu Ile Arg Asn Lys Ala Asn Ser Tyr Thr Thr Glu Tyr Ala Ala
 50 55 60

Ser Val Lys Gly Arg Leu Thr Ile Ser Arg Glu Asp Ser Lys Asn Thr
 65 70 75 80

Leu Tyr Leu Gln Met Ser Ser Leu Lys Thr Glu Asp Leu Ala Val Tyr
 85 90 95

Tyr Cys Ala Arg
 100

<210> 60

<211> 98

<212> PRT

<213> Homo sapiens

<400> 60

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95

Ala Lys

<210> 61

<211> 98

<212> PRT

<213> Homo sapiens

<400> 61

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 62

<211> 98

<212> PRT

<213> Homo sapiens

<400> 62

Glu Val Gln Leu Val Glu Ser Gly Gly Val Val Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Leu Ile Ser Trp Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ser Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95

Ala Lys

<210> 63

<211> 98

<212> PRT

<213> Homo sapiens

<400> 63

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr
 20 25 30

Tyr Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Tyr Ile Ser Ser Ser Gly Ser Thr Ile Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 64

<211> 100

<212> PRT

<213> Homo sapiens

<400> 64

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
 20 25 30

Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Gly Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
 50 55 60

Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
 65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
 85 90 95

Tyr Cys Thr Thr
 100

<210> 65

<211> 98

<212> PRT

<213> Homo sapiens

<400> 65

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Pro Ala Ser Gly Phe Thr Phe Ser Asn His
 20 25 30

Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Tyr Ile Ser Gly Asp Ser Gly Tyr Thr Asn Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Asn Asn Ser Pro Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Val Lys

<210> 66

<211> 98

<212> PRT

<213> Homo sapiens

<400> 66

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn His
 20 25 30

Tyr Thr Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Tyr Ser Ser Gly Asn Ser Gly Tyr Thr Asn Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Val Lys

<210> 67

<211> 98

<212> PRT

<213> Homo sapiens

<400> 67

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ser
 20 25 30

Asp Met Asn Trp Val His Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Gly Val Ser Trp Asn Gly Ser Arg Thr His Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser Arg Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Thr Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Val Arg

<210> 68

<211> 97

<212> PRT

<213> Homo sapiens

<400> 68

Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Ile Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
 20 25 30

Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
 50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
 65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 69

<211> 97

<212> PRT

<213> Homo sapiens

<400> 69

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
 20 25 30

Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
 50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
 65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 70

<211> 97

<212> PRT

<213> Homo sapiens

<400> 70

Glu Val Gln Leu Val His Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Ala Ile Gly Thr Gly Gly Gly Thr Tyr Tyr Ala Asp Ser Val Lys
 50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
 65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 71

<211> 97

<212> PRT

<213> Homo sapiens

<400> 71

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Ala Ile Gly Thr Gly Gly Gly Thr Tyr Tyr Ala Asp Ser Val Lys
 50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
 65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 72

<211> 98

<212> PRT

<213> Homo sapiens

<400> 72

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Val
 35 40 45

Ser Ala Ile Ser Ser Asn Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Val Gln Met Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Val Arg

<210> 73

<211> 35

<212> PRT

<213> Homo sapiens

<400> 73

Thr Phe Ser Ser Tyr Ala Met His Trp Val Arg Gln Ala Pro Gly Lys
 1 5 10 15

Gly Leu Glu Tyr Val Ser Ala Ile Ser Ser Asn Gly Gly Ser Thr Tyr
 20 25 30

Tyr Ala Asp
 35

<210> 74

<211> 98

<212> PRT

<213> Homo sapiens

<400> 74

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

<210> 75

<211> 98

<212> PRT

<213> Homo sapiens

<400> 75

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

<210> 76

<211> 98

<212> PRT

<213> Homo sapiens

<400> 76

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

2012

Cat

2

2

2

2

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<400> 78
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1                    5                10              15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
      20                25              30

Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
      35                40              45

Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
      50                55              60

Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
 65                70              75              80

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Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg

<210> 79

<211> 98

<212> PRT

<213> Homo sapiens

<400> 79

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Glu Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Tyr Ile Ser Ser Ser Gly Ser Thr Ile Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

<210> 80

<211> 98

<212> PRT

<213> Homo sapiens

<400> 80

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys

<210> 81

<211> 98

<212> PRT

<213> Homo sapiens

<400> 81

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 82

<211> 98

<212> PRT

<213> Homo sapiens

<400> 82

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Tyr Ile Ser Ser Ser Ser Ser Thr Ile Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 83
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 83
 Glu Asp Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Pro Ser Cys Ala Ala Ser Gly Phe Ala Phe Ser Ser Tyr
 20 25 30
 Val Leu His Trp Val Arg Arg Ala Pro Gly Lys Gly Pro Glu Trp Val
 35 40 45
 Ser Ala Ile Gly Thr Gly Gly Asp Thr Tyr Tyr Ala Asp Ser Val Met
 50 55 60
 Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr Leu
 65 70 75 80
 Gln Met Asn Ser Leu Ile Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 84
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 84
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Trp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Val Trp Val
 35 40 45
 Ser Arg Ile Asn Ser Asp Gly Ser Ser Thr Thr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 85
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 85
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 86
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 86
 Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Glu Ile Ile His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95
 Arg

<210> 87
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 87
 Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Glu Ile Asn His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 88
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 88
 Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Val Ser Gly Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Asn Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Ala Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Asn Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Cys Cys Ala
 85 90 95

Arg

<210> 89
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 89
 Gln Leu Gln Leu Gln Glu Ser Gly Ser Gly Leu Val Lys Pro Ser Gln
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Ile Ser Ser Gly
 20 25 30
 Gly Tyr Ser Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Tyr Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Thr Ile Ser Val Asp Arg Ser Lys Asn Gln Phe
 65 70 75 80
 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg

<210> 90
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 90
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
 20 25 30
 Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
 65 70 75 80
 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg

<210> 91
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 <212> PRT
 <213> Homo sapiens

<400> 91
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
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 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Val Ser Ser Gly
 20 25 30
 Ser Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
 65 70 75 80
 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg

<210> 92
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 92
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Gly
 20 25 30
 Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 93
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 93
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Ser Ile Ser Ser Gly
 20 25 30
 Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 94
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 94
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Asp
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Met Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Val Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 95
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 95
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 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Ile Tyr Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Met Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Val Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 96
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 96
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Val Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Glu Ile Tyr His Ser Gly Asn Pro Asn Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Ile Asp Lys Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 97
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<400> 97
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 Thr Leu Ser Leu Thr Cys Val Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Glu Ile Tyr His Ser Gly Ser Pro Asn Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Val Asp Lys Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 98
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 98
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Pro Gly
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Glu Ile Tyr His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Val Asp Lys Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Cys Cys
 85 90 95
 Ala Arg

<210> 99
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 99
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 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Glu Ile Tyr His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Val Asp Lys Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 100
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 100
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 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Ser Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Ser Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
 65 70 75 80
 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg

<210> 101
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 101
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 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Ser Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Ser Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn His Phe
 65 70 75 80
 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg

<210> 102
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 102
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Ala Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Arg Ile Tyr Thr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Asn Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95
 Arg

<210> 103
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 103
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95
 Arg

<210> 104
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 104
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Val Ser Ser Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Met Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95
 Arg

<210> 105
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 105
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Asp
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 106
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 106
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
 Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 107
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 107
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
 Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Pro Ile Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95
 Ala Arg -

<210> 108
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 108
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
 Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 109
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 109
 Glu Val Gln Leu Leu Gln Ser Ala Ala Glu Val Lys Arg Pro Gly Glu
 1 5 10 15
 Ser Leu Arg Ile Ser Cys Lys Thr Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile His Trp Val Arg Gln Met Pro Gly Lys Glu Leu Glu Trp Met
 35 40 45
 Gly Ser Ile Tyr Pro Gly Asn Ser Asp Thr Arg Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly His Val Thr Ile Ser Ala Asp Ser Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Ala Ala Met Tyr Tyr Cys
 85 90 95
 Val Arg

<210> 110
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 110
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
 Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile Ser Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Arg Ile Asp Pro Ser Asp Ser Tyr Thr Asn Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly His Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 111
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 111
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
 Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile Ser Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Arg Ile Asp Pro Ser Asp Ser Tyr Thr Asn Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly His Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 112
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 112
 Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Asn
 20 25 30
 Ser Ala Ala Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu
 35 40 45
 Trp Leu Gly Arg Thr Tyr Tyr Arg Ser Lys Trp Tyr Asn Asp Tyr Ala
 50 55 60
 Val Ser Val Lys Ser Arg Ile Thr Ile Asn Pro Asp Thr Ser Lys Asn
 65 70 75 80
 Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
 85 90 95
 Tyr Tyr Cys Ala Arg
 100

<210> 113
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 113
 Arg Lys Leu Gly Ala Ser Val Lys Val Ser Arg Lys Ala Ser Ser Tyr
 1 5 10 15
 Thr Phe Thr Ser Tyr Asp Ile His Cys Val Arg Gln Ala Pro Gly Lys
 20 25 30
 Gly Leu Lys Gly Trp Met Gly Gly Ile Tyr Ser Gly Asn Gly Lys Thr
 35 40 45
 Gly Tyr Ala Gln Lys Phe Gln Arg Val Thr Met Thr Arg Asp Met Ser
 50 55 60
 Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Gln Arg Ser Glu Asp Ile
 65 70 75 80
 Asp Val Tyr Tyr Cys Ala Arg
 85

<210> 114
 <211> 5
 <212> PRT
 <213> Homo sapiens

<400> 114
 Asp Tyr Gly Met Ser
 1 5

<210> 115
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 115
 Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser Val Lys
 1 5 10 15
 Gly

<210> 116
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 116
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Arg
 1 5 10

<210> 117
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 117
 Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
 1 5 10

<210> 118
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 118
 Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 1 5 10

<210> 119
 <211> 8
 <212> PRT
 <213> Homo sapiens

<400> 119
 Gly Lys Gly Leu Glu Trp Val Ser
 1 5

<210> 120
 <211> 6
 <212> PRT
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<400> 120
 Trp Val Arg Gln Ala Pro
 1 5

<210> 121
 <211> 11
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 <213> Homo sapiens

<400> 121
 Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp
 1 5 10

<210> 122
 <211> 7
 <212> PRT
 <213> Homo sapiens

<400> 122
 Ala Val Tyr Tyr Cys Ala Arg
 1 5

<210> 123
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 123
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 1 5 10 15
 Gly Gly Gly Ser
 20

<210> 124
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 124
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1 5 10 15

<210> 125
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 125
 Asn Ser Arg Asp Ser Ser Gly Asn His
 1 5

<210> 126
 <211> 8
 <212> PRT
 <213> Homo sapiens

<400> 126
 Ala Ala Trp Asp Asp Ser Leu Val
 1 5

<210> 127
 <211> 8
 <212> PRT
 <213> Homo sapiens

<400> 127
 Met Gln Ser Ile Gln Leu Pro Thr
 1 5

<210> 128
<211> 9
<212> PRT
<213> Homo sapiens

<400> 128
Met Gln Ser Ile Gln Leu Pro Ala Thr
1 5

<210> 129
<211> 10
<212> PRT
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<400> 129
Ala Ala Trp Asp Asp Gly Leu Ser Leu Val
1 5 10

<210> 130
<211> 10
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<213> Homo sapiens

<400> 130
Ala Ala Trp Asp Asp Ser Leu Ser Gly Val
1 5 10

<210> 131
<211> 11
<212> PRT
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<400> 131
Asn Ser Arg Asp Ser Ser Gly Ser Val Arg Val
1 5 10

<210> 132
<211> 9
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<400> 132
Leu Leu Tyr Tyr Gly Gly Ala Tyr Val
1 5

<210> 133
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<400> 133
Asn Ser Arg Asp Ser Ser Gly Val Ser Arg Val
1 5 10

<210> 134
 <211> 10
 <212> PRT
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<400> 134
 Ala Ala Trp Asp Asp Ser Leu Pro Tyr Val
 1 5 10

<210> 135
 <211> 12
 <212> PRT
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<400> 135
 Ala Ala Trp Asp Asp Ser Leu Cys Pro Glu Phe Val
 1 5 10

<210> 136
 <211> 11
 <212> PRT
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<400> 136
 Ala Ala Trp Asp Asp Ser Leu Ala Trp Phe Val
 1 5 10

<210> 137
 <211> 10
 <212> PRT
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<400> 137
 Leu Ala Trp Asp Thr Ser Pro Arg Trp Val
 1 5 10

<210> 138
 <211> 10
 <212> PRT
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<400> 138
 Thr Ala Trp Asp Asp Ser Leu Ala Val Val
 1 5 10

<210> 139
 <211> 11
 <212> PRT
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<400> 139
Asn Ser Arg Asp Ser Ser Gly Asn His Arg Val
1 5 10

<210> 140
<211> 9
<212> PRT
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<400> 140
Gln Gln Tyr Gly Ser Ser Gln Arg Thr
1 5

<210> 141
<211> 10
<212> PRT
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<400> 141
Ala Ala Trp Asp Asp Ser Leu Arg Leu Val
1 5 10

<210> 142
<211> 9
<212> PRT
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<400> 142
Met Gln Gly Thr His Trp Arg Pro Thr
1 5

<210> 143
<211> 9
<212> PRT
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<400> 143
Met Gln Gly Lys His Trp Pro Leu Thr
1 5

<210> 144
<211> 9
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<400> 144
Ala Ala Trp Asp Asp Ser Leu Gly Phe
1 5


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<210> 145
<211> 9
<212> PRT
<213> Homo sapiens
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<400> 145
Met Gln Gly Thr His Arg Arg Ala Thr
1 5

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<210> 146
<211> 9
<212> PRT
<213> Homo sapiens
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<400> 146
Met Gln Ala Leu Gln Thr Pro Leu Thr
      1             5
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<211> 9
<212> PRT
<213> Homo sapiens
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<400> 147
Met Arg Gly Thr His Arg Arg Ala Thr
1 5

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<210> 148
<211> 9
<212> PRT
<213> Homo sapiens
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Met Gln Gly Thr His Trp His Pro Thr
  1                      5
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<210> 149
<211> 8
<212> PRT
<213> Homo sapiens
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<400> 149
Met Gln Ala Leu Gln Ser Pro Thr
  1             5
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<210> 150
<211> 10
<212> PRT
<213> Homo sapiens
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<400> 150
Ala Ala Trp Asp Asp Ser Leu Ala Phe Val
  1                      5                10
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<210> 151
<211> 8
<212> PRT
<213> Homo sapiens

<400> 151
Met Gln Ala Leu Gln Thr Pro Thr
1 5

<210> 152
<211> 8
<212> PRT
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<400> 152
Gln Gln Ser Tyr Ser Thr Arg Thr
1 5

<210> 153
<211> 9
<212> PRT
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<400> 153
Met Gln Gly Thr His Trp Pro Phe Thr
1 5

<210> 154
<211> 9
<212> PRT
<213> Homo sapiens

<400> 154
Met Gln Gly Thr His Trp Pro Ala Thr
1 5

<210> 155
<211> 10
<212> PRT
<213> Homo sapiens

<400> 155
Ala Ala Trp Asp Asp Ser Leu Arg Ser Val
1 5 10

<210> 156
<211> 9
<212> PRT
<213> Homo sapiens

<400> 156

Ala Ala Trp Asp Asp Ser Leu Leu Val

1 5

<210> 157

<211> 11

<212> PRT

<213> Homo sapiens

<400> 157

Asp Ser Trp Asp Asn Ser Leu Val Ser Pro Val

1 5 10

<210> 158

<211> 9

<212> PRT

<213> Homo sapiens

<400> 158

Met Gln Ala Leu Gln Ser Pro Ala Thr

1 5

<210> 159

<211> 9

<212> PRT

<213> Homo sapiens

<400> 159

Met Gln Ala Leu Gln Thr Pro Val Thr

1 5

<210> 160

<211> 11

<212> PRT

<213> Homo sapiens

<400> 160

Ala Ala Trp Asp Asp Ser Leu Ser Ala Tyr Val

1 5 10

<210> 161

<211> 11

<212> PRT

<213> Homo sapiens

<400> 161

Asn Ser Arg Asp Ser Ser Gly Arg Val Asn Val

1 5 10

<210> 162
<211> 8
<212> PRT
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<400> 162
Met Gln Ala Leu Arg Thr Arg Thr
1 5

<210> 163
<211> 11
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<213> Homo sapiens

<400> 163
Ala Ala Trp Asp Asp Ser Leu Phe Tyr Pro Val
1 5 10

<210> 164
<211> 9
<212> PRT
<213> Homo sapiens

<400> 164
Met Gln Gly Thr His Trp Pro Val Thr
1 5

<210> 165
<211> 8
<212> PRT
<213> Homo sapiens

<400> 165
Met Gln Gly Thr His Trp Arg Thr
1 5

<210> 166
<211> 10
<212> PRT
<213> Homo sapiens

<400> 166
Ala Ala Trp Asp Asp Ser Leu Phe Tyr Val
1 5 10

<210> 167
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Met Gln Ser Ile Gln Leu Pro Leu Thr
1 5

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Ala Ala Trp Asp Asp Ser Leu Leu Gly Ser Val
1 5 10

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<400> 169
Cys Ser Tyr Ala Gly Ser Ser Tyr Val
1 5

<210> 170
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<400> 170
Gln Gln Asp Tyr Asn Leu Leu Thr
1 5

<210> 171
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<400> 171
Val Leu Tyr Met Gly Ser Gly Ser Ala Val
1 5 10

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Met Gln Arg Ile Glu Phe Pro Asn Thr
1 5

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<400> 173

Ala Ala Trp Asp Asp Ser Leu Ala Cys Ala Val
1 5 10

<210> 174

<211> 8

<212> PRT

<213> Homo sapiens

<400> 174

Gln Gln Ala Asn Ser Phe Arg Thr
1 5

<210> 175

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<400> 175

Ala Ala Trp Asp Asp Ser Leu Ser Arg Pro Val
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<213> Homo sapiens

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Ala Ala Trp Asp Asp Ser Leu Tyr Asn Val
1 5 10

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<213> Homo sapiens

<400> 177

Ala Ala Trp Asp Asp Ser Leu Asn Arg Asn Val
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Met Gln Val Leu Gln Thr Arg Thr
1 5

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<211> 8

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<213> Homo sapiens

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Met Gln Ala Leu Gln Thr Arg Thr

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<211> 8

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Gln Gln Ser Tyr Ser Thr Arg Met

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Met Gln Ala Leu Gln Thr Leu Thr

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Met Arg Ala Leu Gln Thr Pro Thr

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Ala Ala Trp Asp Asp Ser Leu Pro Gly Tyr Val

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1 5 10

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1 5

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<400> 187
Ala Ala Trp Asp Asp Ser Leu Ser Ile Val
1 5 10

<210> 188
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Met Gln Gly Thr His Trp Pro Thr
1 5

<210> 189
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<400> 189
Met Gln Ala Leu His Thr Arg Thr
1 5

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1 5

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1 5

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<400> 193
Gln Gln Ala Asn Ser Phe Ala Ala Thr
1 5

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Gln Gln Ala Asn Ser Phe Pro Ala Thr
1 5

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Val Leu Tyr Met Gly Ser Gly Val Tyr Val
1 5 10

<210> 196
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<400> 196
 Ala Ala Trp Asp Asp Ser Leu Trp Ser Ala Val
 1 5 10

<210> 197
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<400> 197
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 1 5 10

<210> 198
 <211> 11
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<400> 198
 Ala Ala Trp Asp Asp Ser Leu Pro Ser Gly Val
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<210> 199
 <211> 8
 <212> PRT
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<400> 199
 Met Gln Ala Leu Gln Thr Leu Thr
 1 5

<210> 200
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 200
 Ala Ala Trp Asp Asp Gly Leu Leu Arg Val
 1 5 10

<210> 201
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 <212> PRT
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<400> 201
 Ala Ala Trp Asp Asp Ser Leu Ala Leu Val
 1 5 10

<210> 202
 <211> 11
 <212> PRT
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<400> 202
 Asn Ser Arg Asp Ser Ser Gly Phe Gln Leu Val
 1 5 10

<210> 203
 <211> 277
 <212> PRT
 <213> Homo sapiens

<400> 203
 Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala
 1 5 10 15
 Ala Gln Pro Ala Met Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly
 20 25 30
 Val Val Arg Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 35 40 45
 Phe Thr Phe Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly
 50 55 60
 Lys Gly Leu Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr
 65 70 75 80
 Gly Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
 85 90 95
 Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 100 105 110
 Thr Ala Val Tyr Tyr Cys Ala Arg Leu Thr His Pro Tyr Phe Trp Gly
 115 120 125
 Gln Gly Thr Leu Val Thr Val Ser Arg Gly Gly Gly Gly Ser Gly Gly
 130 135 140
 Gly Gly Ser Gly Gly Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala
 145 150 155 160
 Val Ser Val Ala Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp
 165 170 175
 Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln
 180 185 190
 Ala Pro Val Leu Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile
 195 200 205

Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr
 210 215 220

Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser
 225 230 235 240

Arg Asp Ser Ser Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu
 245 250 255

Thr Val Leu Gly Ala Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp
 260 265 270

Leu Asn Gly Ala Ala
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<210> 204
 <211> 266
 <212> PRT
 <213> Homo sapiens

<400> 204
 Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala
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Ala Gln Pro Ala Met Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly
 20 25 30

Val Val Arg Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 35 40 45

Phe Thr Phe Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly
 50 55 60

Lys Gly Leu Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr
 65 70 75 80

Gly Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
 85 90 95

Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly
 115 120 125

Gln Gly Thr Leu Val Thr Val Ser Arg Gly Gly Gly Gly Ser Gly Gly
 130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala
 145 150 155 160

Val Ser Val Ala Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp
 165 170 175

Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln
 180 185 190

Ala Pro Val Leu Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile
 195 200 205

Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr
 210 215 220

Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser
 225 230 235 240

Arg Asp Ser Ser Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu
 245 250 255

Thr Val Leu Gly Ala Ala Ala Lys Ala Lys
 260 265

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 <211> 1395
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 <213> Homo sapiens

<220>
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 <222> (1)..(1392)

<400> 205
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 Met Ala Trp Ala Leu Leu Leu Leu Thr Leu Leu Thr Gln Asp Thr Gly
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tcc tgg gcc gat atc cag ctg gtg gag tct ggg gga ggt gtg gta cgg 96
 Ser Trp Ala Asp Ile Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg
 20 25 30

cct ggg ggg tcc ctg aga ctc tcc tgt gca gcc tct gga ttc acc ttt 144
 Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

gat gat tat ggc atg agc tgg gtc cgc caa gct cca ggg aag ggg ctg 192
 Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 50 55 60

gag tgg gtc tct ggt att aat tgg aat ggt ggt agc aca ggt tat gca 240
 Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala
 65 70 75 80

gac tct gtg aag ggc cga ttc acc atc tct aga gac aac gcc aag aac 288
 Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 85 90 95

tcc ctg tat ctg caa atg aac agt ctg aga gcc gag gac acg gcc gtg 336
 Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
 100 105 110

tat tac tgt gca aga atg agg gct cct gtg att tgg ggc caa ggt acc 384
 Tyr Tyr Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr
 115 120 125

ctg gtc acc gtc tcg agt gct tcc acc aag ggc cca tcg gtc ttc ccc	432
Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro	
130 135 140	
ctg gca ccc tcc tcc aag agc acc tct ggg ggc aca gcg gcc ctg ggc	480
Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly	
145 150 155 160	
tgc ctg gtc aag gac tac ttc ccc gaa ccg gtg acg gtg tcg tgg aac	528
Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn	
165 170 175	
tca ggc gcc ctg acc agc ggc gtg cac acc ttc ccg gct gtc cta cag	576
Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln	
180 185 190	
tcc tca gga ctc tac tcc ctc agc agc gtg gtg acc gtg ccc tcc agc	624
Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser	
195 200 205	
agc ttg ggc acc cag acc tac atc tgc aac gtg aat cac aag ccc agc	672
Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser	
210 215 220	
aac acc aag gtg gac aag aga gtt gag ccc aaa tct tgt gac aaa act	720
Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr	
225 230 235 240	
cac aca tgc cca ccg tgc cca gca cct gaa ctc ctg ggg gga ctg tca	768
His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Leu Ser	
245 250 255	
gtc ttc ctc ttc ccc cca aaa ccc aag gac acc ctc atg atc tcc cg	816
Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg	
260 265 270	
acc cct gag gtc aca tgc gtg gtg gtg gac gtg agc cac gaa gac cct	864
Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro	
275 280 285	
gag gtc aag ttc aac tgg tac gtg gac ggc gtg gag gtg cat aat gcc	912
Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala	
290 295 300	
aag aca aag ccg cgg gag gag cag tac aac agc acg tac cgt gtg gtc	960
Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val	
305 310 315 320	
agc gtc ctc acc gtc ctg cac cag gac tgg ctg aat ggc aag gag tac	1008
Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr	
325 330 335	
aag tgc aag gtc tcc aac aaa gcc ctc cca gcc ccc atc gag aaa acc	1056
Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr	
340 345 350	

atc tcc aaa gcc aaa ggg cag ccc cga gaa cca cag gtg tac acc ctg 1104
 Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
 355 360 365
 ccc cca tcc cgg gag gag atg acc aag aac cag gtc agc ctg acc tgc 1152
 Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
 370 375 380
 ctg gtc aaa ggc ttc tat ccc agc gac atc gcc gtg gag tgg gag agc 1200
 Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
 385 390 395 400
 aat ggg cag ccg gag aac aac tac aag acc acg tct ccc gtg ctg gac 1248
 Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Ser Pro Val Leu Asp
 405 410 415
 tcc gac ggc tcc ttc ttc ctc tat agc aag ctc acc gtg cac aag agc 1296
 Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val His Lys Ser
 420 425 430
 agg tgg cag cag ggg aac gtc ttc tca tgc tcc gtg atg cat gag gct 1344
 Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
 435 440 445
 ctg cac aac cac tac acg cag aag agc ctc tcc ctg tct ctg ggt aaa 1392
 Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys
 450 455 460
 tga 1395

<210> 206

<211> 464

<212> PRT

<213> Homo sapiens

<400> 206

Met Ala Trp Ala Leu Leu Leu Leu Thr Leu Leu Thr Gln Asp Thr Gly
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 Ser Trp Ala Asp Ile Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg
 20 25 30
 Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45
 Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 50 55 60
 Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala
 65 70 75 80
 Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 85 90 95
 Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
 100 105 110

Tyr	Tyr	Cys	Ala	Arg	Met	Arg	Ala	Pro	Val	Ile	Trp	Gly	Gln	Gly	Thr	115	120	125
Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro	130	135	140
Leu	Ala	Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly	Gly	Thr	Ala	Ala	Leu	Gly	145	150	155
Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp	Asn	165	170	175
Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu	Gln	180	185	190
Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser	Ser	195	200	205
Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	Cys	Asn	Val	Asn	His	Lys	Pro	Ser	210	215	220
Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Pro	Lys	Ser	Cys	Asp	Lys	Thr	225	230	235
His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Leu	Ser	245	250	255
Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	260	265	270
Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	275	280	285
Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	290	295	300
Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	Arg	Val	Val	305	310	315
Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	325	330	335
Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	340	345	350
Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	355	360	365
Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	370	375	380
Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	385	390	395
Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Ser	Pro	Val	Leu	Asp	405	410	415

Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val His Lys Ser
 420 425 430
 Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
 435 440 445
 Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys
 450 455 460

<210> 207
 <211> 702
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(699)

<400> 207
 atg gcc tgg gct ctg ctg ctc ctc acc ctc ctc act cag gac aca ggg 48
 Met Ala Trp Ala Leu Leu Leu Leu Thr Leu Leu Thr Gln Asp Thr Gly
 1 5 10 15
 tcc tgg gcc gat gca gag ctg act cag gac cct gct gtg tct gtg gcc 96
 Ser Trp Ala Asp Ala Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala
 20 25 30
 ttg gga cag aca gtc agg atc aca tgc caa gga cac agc ctc aga agc 144
 Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly His Ser Leu Arg Ser
 35 40 45
 tat tat gca agc tgg tac cag cag aag cca gga cag gcc cct gta ctt 192
 Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu
 50 55 60
 gtc atc tat ggt aaa aac aac cgg ccc tca ggg atc cca gac cga ttc 240
 Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe
 65 70 75 80
 tct ggc tcc agc tca gga aac aca gct tcc ttg acc atc act ggg gct 288
 Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala
 85 90 95
 cag gcg gaa gat gag gct gac tat tac tgt aac tcc cgg gac agc agt 336
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser
 100 105 110
 ggt aac cat gtg gta ttc ggc gga ggg acc aag ctg acc gtc cta ggt 384
 Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 115 120 125
 cag ccc aag gct gcc ccc tcg gtc act ctg ttc ccg ccc tcc tct gag 432
 Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu
 130 135 140

gag ctt caa gcc aac aag gcc aca ctg gtg tgt ctc ata agt gac ttc 480
 Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe
 145 150 155 160
 tac ccg gga gcc gtg aca gtg gcc tgg aag gca gat agc agc ccc gtc 528
 Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val
 165 170 175
 aag gcg gga gtg gag acc acc aca ccc tcc aaa caa agc aac aac aag 576
 Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys
 180 185 190
 tac gcg gcc agc agc tac ctg agc ctg acg cct gag cag tgg aag tcc 624
 Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser
 195 200 205
 cac aaa agc tac agc tgc cag gtc acg cat gaa ggg agc acc gtg gag 672
 His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu
 210 215 220
 aag aca gtg gcc cct aca gaa tgt tca tga 702
 Lys Thr Val Ala Pro Thr Glu Cys Ser
 225 230

<210> 208
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 208
 Met Ala Trp Ala Leu Leu Leu Thr Leu Leu Thr Gln Asp Thr Gly
 1 5 10 15
 Ser Trp Ala Asp Ala Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala
 20 25 30
 Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly His Ser Leu Arg Ser
 35 40 45
 Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu
 50 55 60
 Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe
 65 70 75 80
 Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala
 85 90 95
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser
 100 105 110
 Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 115 120 125
 Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu
 130 135 140

Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe
 145 150 155 160
 Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val
 165 170 175
 Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys
 180 185 190
 Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser
 195 200 205
 His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu
 210 215 220
 Lys Thr Val Ala Pro Thr Glu Cys Ser
 225 230

<210> 209
 <211> 260
 <212> PRT
 <213> Homo sapiens

<400> 209
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Tyr Ala Lys Thr Leu Met Arg Gln Tyr Ser Leu Trp Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly
 115 120 125
 Gly Ser Gly Gly Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala Val
 130 135 140
 Ser Val Ala Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser
 145 150 155 160
 Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala
 165 170 175

Pro Val Leu Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro
 180 185 190

Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile
 195 200 205

Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg
 210 215 220

Asp Ser Ser Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu Thr
 225 230 235 240

Val Leu Gly Ala Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 245 250 255

Asn Gly Ala Ala
 260

<210> 210
 <211> 831
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (2)..(802)

<220>
 <221> modified_base
 <222> (803)..(806)
 <223> unknown nucleotide

<400> 210
 a tta tta ctc gcg gcc cag ccg gcc atg gcc gag gtg cag ctg gtg gag 49
 Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Glu Val Gln Leu Val Glu
 1 5 10 15

tct ggg gga ggc ttg gta cag cct ggg ggg tcc ctg aga ctc tcc tgt 97
 Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys
 20 25 30

gca gcc tct gga ttc acc ttt agc agc tat gcc atg agc tgg gtc cgc 145
 Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser Trp Val Arg
 35 40 45

cag gct cca ggg aag ggg ctg gag tgg gtc tca gct att agt ggt agt 193
 Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Ser Gly Ser
 50 55 60

ggt ggt agc aca tac tac gca gac tcc gtg aag ggc cgg ttc acc atc 241
 Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile
 65 70 75 80

tcc aga gac aat tcc aag aac acg ctg tat ctg caa atg aac agc ctg 289
 Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu
 85 90 95

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aga gcc gag gac acg gcc gtg tat tac tgt gca aga acg ggg cag agt 337
Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Thr Gly Gln Ser
      100      105      110

att aag cgt agt tgg ggc caa ggt acc ctg gtc acc gtg tcg aga ggt 385
Ile Lys Arg Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser Arg Gly
      115      120      125

gga ggc ggt tca ggc gga ggt ggc tct ggc ggt ggc gga tcg tct gag 433
Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ser Glu
      130      135      140

ctg act cag gac cct gct gtg tct gtg gcc ttg gga cag aca gtc agg 481
Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr Val Arg
      145      150      155      160

atc aca tgc caa gga gac agc ctc aga agc tat tat gca agc tgg tac 529
Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr
      165      170      175

cag cag aag cca gga cag gcc cct gta ctt gtc atc tat ggt aaa aac 577
Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly Lys Asn
      180      185      190

aac cgg ccc tca ggg atc cca gac cga ttc tct ggc tcc agc tca gga 625
Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly
      195      200      205

aac aca gct tcc ttg acc atc act ggg gct cag gcg gaa gat gag gct 673
Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala
      210      215      220

gac tat tac tgt aac tcc cgg gac agc agt ggt aac cat gtg gta ttc 721
Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Val Val Phe
      225      230      235      240

ggc gga ggg acc aag ctg acc gtc cta ggt gcg gcc gca gaa caa aaa 769
Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Ala Glu Gln Lys
      245      250      255

ctc atc tca gaa gag gat ctg aat ggg gcc gca nnnnactggtt gaatttttta 822
Leu Ile Ser Glu Glu Asp Leu Asn Gly Ala Ala
      260      265

agttaacct 831

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<210> 211

<211> 256

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Y1-Biotag sequence

<400> 211

Met	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Arg	Pro	Gly
1				5					10					15	
Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Asp	Asp
			20					25					30		
Tyr	Gly	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp
		35					40					45			
Val	Ser	Gly	Ile	Asn	Trp	Asn	Gly	Gly	Ser	Thr	Gly	Tyr	Ala	Asp	Ser
	50					55					60				
Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Ser	Leu
	65				70				75						80
Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr
				85					90					95	
Cys	Ala	Arg	Met	Arg	Ala	Pro	Val	Ile	Trp	Gly	Gln	Gly	Thr	Leu	Val
			100					105					110		
Thr	Val	Ser	Arg	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly
		115					120					125			
Gly	Gly	Ser	Ser	Glu	Leu	Thr	Gln	Asp	Pro	Ala	Val	Ser	Val	Ala	Leu
	130					135					140				
Gly	Gln	Thr	Val	Arg	Ile	Thr	Cys	Gln	Gly	Asp	Ser	Leu	Arg	Ser	Tyr
145					150					155					160
Tyr	Ala	Ser	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Val	Leu	Val
				165					170					175	
Ile	Tyr	Gly	Lys	Asn	Asn	Arg	Pro	Ser	Gly	Ile	Pro	Asp	Arg	Phe	Ser
			180					185					190		
Gly	Ser	Ser	Ser	Gly	Asn	Thr	Ala	Ser	Leu	Thr	Ile	Thr	Gly	Ala	Gln
		195					200					205			
Ala	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Asn	Ser	Arg	Asp	Ser	Ser	Gly
	210					215					220				
Asn	Asn	Val	Val	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu	Gly	Gly
225					230					235				240	
Gly	Gly	Leu	Asn	Asp	Ile	Phe	Glu	Ala	Gln	Lys	Ile	Glu	Trp	His	Glu
			245						250					255	

<210> 212

<211> 246

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Y1-cys-kak scFv Sequence

<400> 212

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Met Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly
 1              5              10              15

Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp
      20              25              30

Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
      35              40              45

Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser
      50              55              60

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu
      65              70              75              80

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
      85              90              95

Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr Leu Val
      100             105             110

Thr Val Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
      115             120             125

Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu
      130             135             140

Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr
      145             150             155             160

Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val
      165             170             175

Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
      180             185             190

Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln
      195             200             205

Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly
      210             215             220

Asn His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly
      225             230             235             240

Gly Gly Cys Lys Ala Lys
      245

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<210> 213

<211> 267

<212> PRT

<213> Homo sapiens

<400> 213

Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Glu Val Gln Leu Val Glu
 1 5 10 15
 Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys
 20 25 30
 Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser Trp Val Arg
 35 40 45
 Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Ser Gly Ser
 50 55 60
 Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile
 65 70 75 80
 Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu
 85 90 95
 Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Thr Gly Gln Ser
 100 105 110
 Ile Lys Arg Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser Arg Gly
 115 120 125
 Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ser Glu
 130 135 140
 Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr Val Arg
 145 150 155 160
 Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr
 165 170 175
 Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly Lys Asn
 180 185 190
 Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly
 195 200 205
 Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala
 210 215 220
 Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Val Val Phe
 225 230 235 240
 Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Ala Glu Gln Lys
 245 250 255
 Leu Ile Ser Glu Glu Asp Leu Asn Gly Ala Ala
 260 265

<210> 214

<211> 7

<212> PRT

<213> Homo sapiens

<400> 214
 Tyr Glu Tyr Leu Asp Tyr Asp
 1 5

<210> 215
 <211> 13
 <212> PRT
 <213> Homo sapiens

<400> 215
 Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp Thr Glu
 1 5 10

<210> 216
 <211> 43
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: artifical
 formula sequence

<220>
 <221> REPEAT
 <222> (1)..(2)
 <223> This region may encompass 0 to 2 residues

<220>
 <221> REPEAT
 <222> (3)..(4)
 <223> Any amino acid except Glycine, Glutamate, Aspartate
 or Tyrosine and this region may encompass 0 to 2 residues

<220>
 <221> REPEAT
 <222> (5)..(7)
 <223> This region may encompass 0 to 3 residues

<220>
 <221> REPEAT
 <222> (8)..(10)
 <223> This region may encompass 0 to 3 residues

<220>
 <221> REPEAT
 <222> (11)..(13)
 <223> This region may encompass 1 to 3 residues

<220>
 <221> REPEAT
 <222> (14)..(5)
 <223> Any amino acid except Glycine, Glutamate, Aspartate
 or Tyrosine and this region may encompass 0 to 2 residues

<220>

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<221> REPEAT
<222> (16)..(18)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (19)..(21)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (22)..(24)
<223> This region may encompass 1 to 3 residues

<220>
<221> REPEAT
<222> (25)..(26)
<223> Any amino acid except Glycine, Glutamate, Aspartate
      or Tyrosine and this region may encompass 0 to 2 residues

<220>
<221> REPEAT
<222> (27)..(29)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (30)..(32)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (33)..(35)
<223> This region may encompass 1 to 3 residues

<220>
<221> REPEAT
<222> (36)..(38)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (39)..(41)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (42)..(43)
<223> Any amino acid except Glycine, Glutamate, Aspartate
      or Tyrosine and this region may encompass 0 to 2 residues

<400> 216
Gly Gly Xaa Xaa Glu Glu Glu Asp Asp Asp Tyr Tyr Tyr Xaa Xaa Glu
  1              5              10              15

Glu Glu Asp Asp Asp Tyr Tyr Tyr Xaa Xaa Glu Glu Glu Asp Asp Asp
      20              25              30

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Tyr Tyr Tyr Asp Asp Asp Glu Glu Glu Xaa Xaa
 35 40

<210> 217
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 217
 Glu Cys Pro Glu Gly Tyr Ile Leu Asp Asp Gly Phe Ile Cys Thr Asp
 1 5 10 15

Ile Asp Glu

<210> 218
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 218
 Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp Thr
 1 5 10 15

Glu Gly Asp

<210> 219
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 219
 Gly Glu Glu Asp Asp Asp Tyr Leu Asp Leu Glu Glu Asp Asp Asp Tyr
 1 5 10 15

Ile Asp Ile Val Asp
 20

<210> 220
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 220
 Val Arg Pro Glu His Pro Ala Glu Thr Glu Tyr Asp Ser Leu Tyr Pro
 1 5 10 15

Glu Asp Asp Leu
 20

<210> 221
 <211> 13
 <212> PRT
 <213> Homo sapiens

<400> 221
 Pro Pro Met Glu Glu Asp Tyr Pro Gln Phe Gly Ser Pro
 1 5 10

<210> 222
 <211> 13
 <212> PRT
 <213> Homo sapiens

<400> 222
 Arg Ile Ser Asp Arg Asp Tyr Met Gly Trp Met Asp Phe
 1 5 10

<210> 223
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 223
 Cys His Cys Ser Thr Cys Tyr Tyr His Lys Ser
 1 5 10

<210> 224
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 224
 Met Glu Ala Asn Glu Asp Tyr Glu Asp Tyr Glu Tyr Asp Glu Leu Pro
 1 5 10 15

Ala Lys

<210> 225
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 225
 Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
 1 5 10 15

Glu

<210> 226
 <211> 16
 <212> PRT
 <213> Homo sapiens

<400> 226
 Gly Asp Tyr Tyr Glu Asp Ser Tyr Glu Asp Ile Ser Ala Tyr Leu Leu
 1 5 10 15

<210> 227
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 227
 Gly Tyr Tyr Asp Tyr Asp Phe Pro Leu
 1 5

<210> 228
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Primer

<400> 228
 ttccatgatgg agctgactca ggaccctgct 30

<210> 229
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Primer

<400> 229
 ttggaattcc tatatttgctt ttgcggc 27

<210> 230
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 230
 Arg Glu Glu Gly Arg Gln His Phe Phe Leu Leu Glu Gly Arg Ser Ser
 1 5 10 15

Tyr Ser

<210> 231
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 231
 Gly Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp
 1 5 10 15

Thr Glu

<210> 232
 <211> 18
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (9)
 <223> Sulfated tyrosine

<220>
 <221> MOD_RES
 <222> (11)
 <223> Sulfated tyrosine

<220>
 <221> MOD_RES
 <222> (12)
 <223> Sulfated tyrosine

<400> 232
 Gly Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp
 1 5 10 15

Thr Glu

<210> 233
 <211> 13
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (4)
 <223> Sulfated tyrosine

<220>
 <221> MOD_RES
 <222> (6)
 <223> Sulfated tyrosine

<220>
 <221> MOD_RES
 <222> (7)
 <223> Sulfated tyrosine

<400> 233
 Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp Thr Glu
 1 5 10

<210> 234
 <211> 13
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (9)
 <223> Sulfated tyrosine

<220>
 <221> MOD_RES
 <222> (11)
 <223> Sulfated tyrosine

<220>
 <221> MOD_RES
 <222> (12)
 <223> Sulfated tyrosine

<400> 234
 Gly Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro
 1 5 10

<210> 235
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 235
 Glu His Pro Ala Glu Thr Glu Tyr Asp Ser Leu Tyr Pro Glu Asp
 1 5 10 15

<210> 236
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 236
 Val Arg Pro Glu His Pro Ala Glu Thr Glu Tyr Glu Ser Leu Tyr Pro
 1 5 10 15

Glu Asp Asp Leu
 20

<210> 237
 <211> 20
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (11)
 <223> Sulfated tyrosine

<220>
 <221> MOD_RES
 <222> (15)
 <223> Sulfated tyrosine

<400> 237
 Val Arg Pro Glu His Pro Ala Glu Thr Glu Tyr Glu Ser Leu Tyr Pro
 1 5 10 15

Glu Asp Asp Leu
 20

<210> 238
 <211> 17
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (5)
 <223> Sulfated tyrosine

<400> 238
 Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
 1 5 10 15

Glu

<210> 239
 <211> 17
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (5)
 <223> Sulfated tyrosine

<220>
 <221> MOD_RES
 <222> (7)
 <223> Sulfated tyrosine

<400> 239

Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
1 5 10 15

Glu

<210> 240

<211> 17

<212> PRT

<213> Homo sapiens

<220>

<221> MOD_RES

<222> (5)

<223> Sulfated tyrosine

<220>

<221> MOD_RES

<222> (10)

<223> Sulfated tyrosine

<400> 240

Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
1 5 10 15

Glu

<210> 241

<211> 17

<212> PRT

<213> Homo sapiens

<220>

<221> MOD_RES

<222> (7)

<223> Sulfated tyrosine

<400> 241

Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
1 5 10 15

Glu

<210> 242

<211> 17

<212> PRT

<213> Homo sapiens

<220>

<221> MOD_RES

<222> (7)

<223> Sulfated tyrosine

<220>
 <221> MOD_RES
 <222> (10)
 <223> Sulfated tyrosine

<400> 242
 Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
 1 5 10 15

Glu

<210> 243
 <211> 17
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (10)
 <223> Sulfated tyrosine

<400> 243
 Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
 1 5 10 15

Glu

<210> 244
 <211> 18
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (9)
 <223> Sulfated tyrosine

<220>
 <221> MOD_RES
 <222> (11)
 <223> Sulfated tyrosine

<220>
 <221> MOD_RES
 <222> (12)
 <223> Sulfated tyrosine

<400> 244
 Gly Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp
 1 5 10 15

Thr Glu

<210> 245
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide tag

<400> 245
 His His His His His His
 1 5

<210> 246
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide tag

<400> 246
 His Thr Thr Pro His His
 1 5

<210> 247
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 GlySer linker

<400> 247
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1 5 10 15

<210> 248
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 GlySer linker

<400> 248
 Gly Gly Gly Gly Ser
 1 5

<210> 249
 <211> 74
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 249
 tcgacctcat caccatggcc tgggctctgc tgctcctcac cctcctcact caggacacag 60
 ggtcctgggc cgat 74

<210> 250
 <211> 91
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 250
 gatcgattgc accagctgga tatcggccca ggaccctgtg tcctgagtga ggaggggtgag 60
 gagcagcaga gcccaggcca tggatgatgag g 91

<210> 251
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 251
 tttgatatcc agctggtgga gtctggggga 30

<210> 252
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 252
 gctgacctag gacggtcagc ttggt 25

<210> 253
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 253
gggatatcca gctgswggag tcgggc 26

<210> 254
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 254
ggactcgaga cggtgaccag ggtaccttg 29

<210> 255
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 255
ccgtcctagg tcagcccaag gctgc 25

<210> 256
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 256
tttgcggccg ctcatgaaca ttctgtagg gccactgt 38

<210> 257
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 257
accgctcgag tgcytccacc aagggcccat csgtcttc 38

<210> 258
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 258
tttgcggccg ctcatttacc crgagacagg gagaggct 38

<210> 259
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 259
aactcgagtg agctgacaca ggaccct 27

<210> 260
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 260
tttgtcgact catttctttt ttgcggccgc acc 33

<210> 261
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 261
atgaaatacc tattgcctac gg 22

<210> 262
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 262
 aactcgagac ggtgaccagg gtacc

25

<210> 263
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 263
 tcgagaggtg gaggcggt

18

<210> 264
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 264
 tcgaaccgcc tccacctc

18

<210> 265
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 265
 Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro
 1 5 10

<210> 266
 <211> 7
 <212> PRT
 <213> Homo sapiens

<400> 266
 Tyr Asp Tyr Tyr Pro Glu Glu
 1 5

<210> 267

<211> 8

<212> PRT

<213> Homo sapiens

<400> 267

Thr Asp Leu Tyr Asp Tyr Tyr Pro

1

5

<210> 268

<211> 14

<212> PRT

<213> Homo sapiens

<400> 268

Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu

1

5

10

<210> 269

<211> 7

<212> PRT

<213> Homo sapiens

<220>

<221> MOD_RES

<222> (1)

<223> Sulfated tyrosine

<400> 269

Tyr Asp Tyr Tyr Pro Glu Glu

1

5

<210> 270

<211> 13

<212> PRT

<213> Homo sapiens

<400> 270

Gly Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro

1

5

10